

The Examiner has rejected Claims 1, 19-20 and 22-37 under 35 U.S.C. §103(a) as being obvious over European Patent Application No. 741,177 ("EP '177") alone or in view of Widder et al. U.S. Patent No. 4,504,652 ("Widder").

Nowhere does EP '177 disclose or suggest an adhesive composition having two polyester components wherein "component A comprises at least one polyester with a molecular weight ( $M_n$ ) of at least 8,000 and a total enthalpy of fusion of at most 20 mJ/mg and component B comprises at least one polyester with a molecular weight ( $M_n$ ) of less than 8,000 and a glass transition temperature of at most 60°C" as generally recited in Claims 1, 30 and 35.

Rather, EP '177 discloses hot melt adhesives prepared from a biodegradable thermoplastic polymer, e.g., polylactides, aliphatic polyesters, etc., sucrose benzoate and, optionally a plasticizer, e.g., liquid polyesters. At no point in EP '177 is there even a remote suggestion of combining polyesters with a molecular weight of at least 8,000 and a total enthalpy of fusion of at most 20 mJ/mg and polyesters with a molecular weight less than 8,000 and a glass transition temperature of at most 60°C.

Furthermore, the statement in the Office Action that EP '177 teaches a biodegradable adhesive comprising a high molecular weight polyester that can be amorphous, a non-crystalline sucrose benzoate and optionally a plasticizer that can be a low molecular weight liquid polyester is wholly unsupported and cannot serve as a basis for this rejection. It is not seen where EP '177 discloses a low molecular weight liquid polyester. If it is the Examiner's position that EP '177 discloses or suggests such an adhesive composition, the Examiner is respectfully

requested to identify with particularity (by column and line number) where *in EP '177* such teaching or suggestion can be found of employing a low molecular weight polyester having a molecular weight less than 8,000 and a glass transition temperature of at most 60°C.

The Office Action also states “[A]s liquid polyester plasticizers generally have molecular weights below 10,000, use of a commercially available liquid polyester plasticizer with a molecular weight below 8,000 for its intended purpose of plasticizing the composition would have been obvious.” This wholly unsupported statement cannot possibly serve as a basis for this rejection. Accordingly, the Examiner is respectfully requested to identify a reference wherein such teaching can be found.

The selection of a first polyester having a molecular weight of at least 8,000 and has a total enthalpy of fusion of at most 20 mJ/mg, which is an amorphous polyester, together with a second polyester having a molecular weight less than 8,000 and a glass transition temperature of at most 60°C to provide an adhesive having a melt viscosity of 500 to 25,000 mPAS (Brookfield RVT DVII, 140°C, spindle 27) and a softening point of 70 to 100°C (ASTM E28) is based on the Applicants surprising discovery for the first time that the resulting adhesive possesses excellent thermostability while also being biodegradable. There is no teaching, suggestion or even any remote hint in EP ‘177 that combining a polyester having a molecular weight of at least 8,000 with a polyester having a molecular weight less than 8,000 achieved any desirable result. Thus, nothing in EP ‘177 would tend to lead one skilled in the art to modify the hot melt adhesives disclosed therein to arrive at an adhesive possessing excellent thermostability

while also being biodegradable employing a polyester having a molecular weight of at least 8,000 and has a total enthalpy of fusion of at most 20 mJ/mg and a polyester having a molecular weight less than 8,000 and a glass transition temperature of at most 60°C.

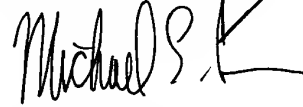
For the foregoing reasons, Claims 1, 19-20 and 22-37 are believed to be nonobvious, and therefore patentable, over EP '177 considered alone.

Widder does not cure the deficiencies of EP '177. Rather, Widder discloses a method for reducing the odor and/or improving the performance of polyester plasticizers for employment in a food environment, e.g., refrigerator gaskets, by subjecting the plasticizers to a second stage reaction with a treating agent. Certainly, one skilled in the art would not look to the polyesters of Widder which are utilized in refrigerator gaskets to arrive at an adhesive used to form composite materials for use in the field of personal hygiene, which are biodegradable and therefore have a limited life expectancy. Accordingly, one skilled in the art would be led away from the teachings of Widder.

Since EP '177, alone or in combination with Widder, does not disclose or suggest an adhesive composition having two polyester components wherein "component A comprises at least one polyester with a molecular weight ( $M_n$ ) of at least 8,000 and has a total enthalpy of fusion of at most 20 mJ/mg and component B comprises at least one polyester with a molecular weight ( $M_n$ ) of less than 8,000 and a glass transition temperature of at most 60°C" as generally recited in Claims 1, 30 and 35, Claims 1, 19-20 and 22-37 are believed to be nonobvious, and therefore patentable, over EP '177 and Widder.

For the foregoing reasons, it is believed that Claims 1 and 19-37 as presented herein are in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael E. Carmen", with a large, stylized flourish extending from the end of the signature.

Michael E. Carmen  
Reg. No. 43,533  
Attorney for Applicant

DILWORTH & BARRESE, LLP  
333 Earle Ovington Blvd.  
Uniondale, New York 11553  
(516) 228-8484

MEC/bg